

THE STATE OF TEXAS

INTERAGENCY COOPERATION CONTRACT

COUNTY OF TRAVIS

This Contract is entered into by and between the State agencies shown below as Contracting Parties, pursuant to the authority granted and in compliance with the provisions of "The Interagency Cooperation Act", Chapter 771 of the Texas Government Code.

I. CONTRACTING PARTIES:

The Receiving Agency: Texas Parks and Wildlife Department (TPWD)

The Performing Agency: Texas State University (TxState)

II. STATEMENT OF SERVICES TO BE PERFORMED:

TxState shall conduct the project titled "Application of Unmanned Aerial Vehicle Technology in Support of TPWD Conservation Goals." This project will utilize the TxState Unmanned Aerial Vehicle (UAV) system to collect digital multispectral imagery of the Llano River Watershed in support of TPWD's ongoing watershed preservation and restoration efforts, which focus on restoring populations of Guadalupe bass *Micropterus treculii*, a Species of Greatest Conservation Need in the Texas Conservation Action Plan (TCAP). This project will also support cooperative conservation planning by TPWD and TxState to identify other potential applications of the UAV system in support of TCAP goals and priorities. The approach and required deliverables for this project are outlined in the attached Project Plan, Attachment A, attached hereto and incorporated herein for all purposes.

At least one (1) TPWD employee will serve as a project coordinator. The project coordinator shall: 1) Serve on any graduate committee as an official or unofficial member, 2) Serve as a co-author on all publications resulting from this project, at TPWD's discretion, and 3) Monitor progress of the project.

All publications arising from this research shall acknowledge TPWD, as well as USFWS State Wildlife Grant Program, or such fund as may supersede it in funding this project.

All data and analyses resulting from this project, and all information regarding the project, become the property of TPWD and will be presented to TPWD in an electronic format determined by TPWD upon request.

With respect to such Intellectual Property as is (i) incorporated in the Work, or (ii) produced by TxState employees, subcontractors, or subcontractor's employees during the course of performing the Work, TxState hereby grants to TPWD, subject to the terms of this Contract, a nonexclusive, perpetual, irrevocable, enterprise-wide license to use, copy, publish, and modify such Intellectual Property, and allow others to do so for TPWD purposes. TxState shall secure all necessary intellectual property licenses from third parties and warrants that the Work and the intended use of the Work will not infringe upon any property rights of any third party.

Equipment and supplies purchased under this Contract shall be used, managed, and disposed of in accordance with the Texas Uniform Grant Management Standards (UGMS). Property records must be maintained on all capitalized or controlled property and equipment that include a description of the property, a serial number or other identification number as provided by State Property Accounting (SPA), the source of the property, who holds title, the acquisition date, and cost of the property. These records must be provided to TPWD at time of acquisition. At least every two years and/or at project closeout a physical inventory of the property must be taken and the results reconciled with property records. TPWD will determine appropriate disposition of such property in accordance with UGMS.

III. BASIS FOR CALCULATING REIMBURSABLE COSTS:

Allowable costs are restricted to those that comply with UGMS and additional state and federal rules and law. The Parties agree that all the requirements of the UGMS apply to this Contract, including the criteria for allowable costs. Additional federal requirements apply when federal funds are included in the reimbursement.

Expenditures for travel and travel-related expenses will be reimbursed at the official rate authorized by the State of Texas.

The cost of materials and supplies should be charged at their actual prices. Proper documentation is required for reimbursement.

Reimbursements are conditioned on the Contract activities being performed in compliance with the Contract.

IV. CONTRACT AMOUNT:

The total amount of this Contract shall not exceed: \$51,999.63 (fifty one thousand nine hundred ninety nine dollars and sixty three cents)

Authorized budgeted expenditures for Work Performed are as follows:

Budget Item	Cost for Work to be Performed (3/1/2011 – 12/31/2011)	Non-reimbursable Match (3/1/2011 – 12/31/2011)	Total
Salaries	\$36,080.98	\$8,000.00	\$44,080.98
Travel	\$4,690.00	\$0.00	\$4690.00
Supplies	\$4,513.00	\$0.00	\$4513.00
Professional Services	\$0.00	\$3,302.00	\$3,302.00
Other Service	\$0.00	\$0.00	\$0.00
Equipment	\$0.00	\$1,700.00	\$1,700.00
Other In-Kind	\$0.00	\$0.00	\$0.00
Tuition	\$0.00	\$0.00	\$0.00
Indirect costs	\$6,715.65	\$14,998.28	\$21,713.93
Total	\$51,999.63	\$28,000.28	\$79,999.91

V. PAYMENT FOR SERVICES:

Receiving Agency shall pay for services received from appropriation items or accounts of the Receiving Agency from which like expenditures would normally be paid, based upon vouchers drawn by the Receiving Agency payable to Performing Agency.

For payment purposes, the Performing Agency (agency receiving payment) shall submit to the Receiving Agency (agency making payment) an invoice with the Performing Agency's RTI (for funds transfer at the Treasury) or a Purchase Voucher (for deposit in local bank account). The Receiving Agency will enter payment information into USAS.

Payments received by the Performing Agency shall be credited to its current appropriation item(s) or account(s) from which the expenditures of that character were originally made.

Any excess costs over the TPWD contribution toward one awarded contract cannot be submitted for reimbursement against another contract.

VI. INVOICING:

Payments for service performed shall be billed at least Quarterly, but not more frequently than monthly.

INVOICES WILL BE SENT TO:

Connie Knesek
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744

Invoices shall detail each expense by Budget category in accordance with Attachment A and shall be supported by appropriate back up documentation that, in the judgment of TPWD, allows for full substantiation of the costs incurred during the invoiced period. Backup documentation must be submitted for both the contract expenses incurred and the match amounts. Cost share must be documented on each invoice. A sample invoice with match documentation is attached hereto as Attachment B.

The required match of 35% must be documented on each invoice. If Performing Entity fails to document the required match TPWD will reduce reimbursable amount to 65% until such match is provided. If Performing Entity does not meet the match requirement of this Agreement, the amount of federal funds to be disbursed will be proportionately lowered or, if already disbursed, a refund of federal funds will be required.

All invoices and reports must be received within 60 days of end of each fiscal year or termination of contract. Invoices not received within this time frame may not be paid.

VII. CONTRACT ADMINISTRATION:

TPWD Project Coordinator Contact Info

Timothy Birdsong
Fish Biologist / Branch Chief
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744
512-389-4744 office
Timothy.Birdsong@tpwd.state.tx.us

TPWD Contract Point of Contact

Tammy Dunham CTCM, CTPM
Contract Specialist
Texas Parks & Wildlife Department
4200 Smith School Road
Austin, Texas 78744
512-389-4752 office
512-389-4677 fax
tammy.dunham@tpwd.state.tx.us

TxState Project Leader Contact Info

TxState Contract Point of Contact

700 TERM OF CONTRACT:

This Contract is to begin Upon signature by both parties, and

shall terminate December 31, 2011

An extension to this contract may be granted with prior written approval by TPWD. Any extensions shall be at the same terms and conditions, plus any approved changes.

This contract is subject to cancellation, without penalty, either in whole or in part, if funds are not appropriated by the Texas Legislature, or otherwise made available, to TPWD.

VIII. GENERAL TERMS AND CONDITIONS:

Definitions: As used throughout this contract, the following terms shall have the meaning set forth below:

- A. Capitalized Property is real or personal property that have an estimated life of greater than one year. A capital asst has a value equal to or greater than the capitalization threshold established for that asset type. In accordance with State Property Accounting (SPA) regulations

B. Controlled Property is a capital asset that has a value less than the capitalization threshold established for that asset type, however due to its high-risk threshold, is required to be reported to SPA. The Comptrollers controlled assets list can be found online at: <https://fm.x.cpa.state.tx.us/fmx/spa/classclosed/control.php>.

C. Contractor shall mean that firm, provider, organization, individual or other entity performing service(s) under this contract, and shall include all employees of the Performing Agency.

Abandonment or Default: If the contractor defaults on the contract, TPWD reserves the right to cancel this Contract without notice. The defaulting contractor will not be considered in the re-solicitation and may not be considered in future solicitations for the same type of work, unless the specification or scope of work significantly changed. The period of suspension will be determined by the agency based on the seriousness of the default.

Amendments: This Contract may be amended by mutual agreement of the parties. Such amendments shall not be binding unless they are in writing and signed by personnel authorized to bind each of the parties.

Audit: Performing Agency understands that acceptance of funds under this contract acts as acceptance of the authority of the State Auditor's Office, TPWD or any successor agency, to conduct an audit or investigation in connection with those funds. Performing Agency further agrees to cooperate fully with the above parties in the conduct of the audit or investigation, including providing access to any information the state auditor considers relevant to the investigation or audit. Performing Agency shall ensure that this clause concerning the authority to audit funds received indirectly by subcontractors through the Performing Agency and the requirement to cooperate is included in any subcontract it awards.

Disallowed Costs: The Performing Agency is responsible for any audit exceptions or disallowed costs incurred by its own organization or that of its Subcontractors.

Dispute Resolution: Any disputes arising from this agreement shall be resolved using Chapter 2260 of the Texas Government Code

TPWD may avail itself of any remedy or sanction provided in this Contract or in law to recover any losses arising from or caused by Performing Agency's substandard performance or any non-conformity with this Contract or the law.

Performing Agency shall carry on the Contract Activities and adhere to the progress schedule during all disputes or disagreements with TPWD unless ordered to stop the Contract Activities. No Contract Activities shall be delayed or postponed pending resolution of any disputes or disagreements.

Neither payment by TPWD nor any other act or omission other than an explicit written release constitutes a release of Performing Agency from liability for losses under this Contract.

Non-discrimination: The undersigned is subject to Title VI of the Civil Rights Act of 1964, Section 504 or Rehabilitation Act of 1973, Title II of the Americans with disabilities Act of 1990, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and offers all persons the opportunity to participate in programs or activities regardless of race, color, national origin, age, sex or disability. Further, it is agreed that no individual will be turned away or otherwise denied access to or benefit from any program or activity that is directly associated with a program on the basis of race, color national origin, age, and sex (in educational activities) or disability. The prime contractor shall ensure that this clause is included in all subcontracts.

Proprietary or Confidential Information: Contractor will not disclose any information to which it is privy under this Contract without the prior consent of the agency. Contract will indemnify and hold harmless the State of Texas, its officers and employees, and TPWD, its officers and employees for any claims or damages that arise from the disclosure by Contractor or its contractors of information held by the State of Texas.

Public Disclosure: Information, documentation and other material in connection with this contract may be subject to public disclosure pursuant to Chapter 552 of the Texas Government Code ("the Public Information Act"). No public disclosures or news releases pertaining to this contract shall be made without prior written approval of TPWD.

Termination: This Contract shall terminate upon full performance of all requirements contained in this Contract, unless otherwise extended or renewed as provided in accordance with the contract terms and conditions.

Termination for Default: TPWD may, by written notice of default to the contractor, terminate this Contract, in whole or in part, for cause if the contractor fails to perform in full compliance with the contract requirements, through no fault of TPWD. TPWD will provide a thirty (30) day written notice of termination to the contractor of intent to terminate, and TPWD will provide the contractor with an opportunity for consultation with TPWD prior to termination.

Upon receipt of written notice to terminate, the contractor shall promptly discontinue all services affected (unless the notice directs otherwise) and shall deliver or otherwise make available to TPWD, all data, drawings, specifications, reports, estimates, summaries, and such other information and materials as may have been accumulated by the contractor in performing this Contract, whether completed or in process

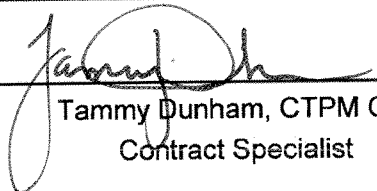
Other Law: Performing Agency understands and agrees that by accepting money for services under this Contract, it will comply with all federal laws and regulations related to grants of federal funds under this Contract. As part of this agreement, Performing Agency will make the necessary certifications and agreements required, including but not limited to federal assurances, Attachments C.

The undersigned contracting parties do hereby certify that, (1) the services specified above are necessary and essential for activities that are properly within the statutory functions and programs of the effected agencies of State Government, (2) the proposed arrangements serve the interest of efficient and economical administration of the State Government, and (3) the services, supplies or materials contracted for are not required by Section 21 of Article 16 of the Constitution of Texas to be supplied under contract given to the lowest responsible bidder.

RECEIVING AGENCY

TEXAS PARKS AND WILDLIFE DEPARTMENT

By:


Tammy Dunham, CTPM CTCM
Contract Specialist

Date:

4/26/11

PERFORMING AGENCY

TEXAS STATE UNIVERSITY

By:


Authorized Signature

Title

Date:

4/21/11

W. Scott Erwin
Director, Sponsored Programs
Texas State University-San Marcos
601 University
San Marcos, Texas 78666
512-245-2102 FAX (512) 245-1822

Attachment A

Project Plan

Title: Application of Unmanned Aerial Vehicle Technology in Support of TPWD Conservation Goals

Overview: This project will utilize the Texas State University (TxState) Unmanned Aerial Vehicle (UAV) system to collect digital multispectral imagery of the Llano River Watershed in support of TPWD's ongoing watershed preservation and restoration efforts, which focus on restoring populations of Guadalupe bass *Micropterus treculii*, a Species of Greatest Conservation Need (SGCN) in the Texas Conservation Action Plan (TCAP). This project will also support cooperative conservation planning by TPWD and TxState to identify other potential applications of the UAV system in support of TCAP goals and priorities.

Task 1:

Objective:

- 1) To acquire high resolution digital multispectral imagery for use in mesohabitat delineations of river features and riparian corridors, and to support the planning and implementation of habitat restoration activities in the watershed.

Methods:

The UAV will be flown at each of the identified study reaches identified in Table 1. Initial flight elevations will target ground resolutions of 0.10 meters for mapping of instream habitat features within each of the identified river segments. At these flight elevations it is anticipated that the riparian corridor within the various river sections will be covered over the length of each study site. However, flight planning will ensure that the complete riparian corridors are covered during image acquisition at these study sites. Final ground resolution will be determined during actual mission planning and consider safety, restricted airspace, terrain, etc. Ground-based calibration data will be collected by collaborators at TPWD and TxState as part of ongoing funded research in the Llano River system.

The imagery at each study site will initially be processed using WorldWind to provide near real time (same day or overnight) access to the imagery for field based mapping by TPWD and TxState personnel. Post flight processing will provide composite mosaics that are georeferenced and orthorectified.

In general, the following steps will be undertaken:

- 1) Mission planning for each of the selected study sites.
- 2) Assist TPWD in obtaining land owner access in the vicinity of the selected study sites for launch and recovery of the UAV.
- 3) Conduct the actual imagery acquisition flights.
- 4) Provide georeferenced imagery for field mapping of instream and/or riparian features to TPWD and TxState personnel.
- 5) Produce georeferenced orthorectified mosaic imagery for each of the study sites.
- 6) Participate in cooperative planning with TPWD and partners to guide conservation decision-making processes in the Llano River Watershed.
- 7) Produce a summary technical report on the application of the UAV, the raw and processed data sets, and feedback from TPWD and TxState personnel on its application for instream and riparian mapping.

Table 1. Locations and length of Upper Llano River System River reaches for acquisition of multispectral digital imagery.

				Miles
Flatrock	30°28'45.30"N	99°46'40.70"W	Flatrock to TTU	1
TTU	30°28'15.61"N	99°47'4.99"W	TTU to SLR Park	4
SLR Park	30°26'59.23"N	99°48'46.21"W	SLR Park to 700 Springs	18
700 Springs	30°16'14.97"N	99°55'16.69"W	confluence to Paint Creek	4
Paint Creek	30°15'54.23"N	99°52'30.47"W		
upper North Fork	30°28'12.83"N	100°11'1.87"W	North Fork to confluence	31
North & South Fork confluence	30°29'29.17"N	99°45'29.42"W		
			Junction to James River	45
				17
James River confluence	30°38'57.80"N	99°15'11.72"W	James River (wetted portion)	

Task 2:

Objectives:

- 1) To conduct a two-day UAV workshop for TPWD personnel at the Kerr Wildlife Management Area to explore potential uses of the UAV system in support of TPWD conservation goals.
- 2) To develop a detailed concept paper and statement of work that identifies next steps in the testing and application of the UAV system in support of specific conservation goals and data and information needs identified during the workshop.

Methods:

This project will host a two-day workshop at the Kerr Wildlife Management Area for TPWD personnel on the application of the TxState UAV system. The first half-day of the workshop will entail a detailed introduction to the UAV system architecture, system configuration, overall system capabilities, basics of mission planning, mission deployment, and basic post flight image processing. The second half of the first day will entail the actual flight demonstration for a number of features in the Kerrville area that will range from upland and wetland mapping to river corridor mapping. The specific target areas will be determined in collaboration with TPWD personnel prior to the workshop. After this demonstration UAV mission, post processing of imagery will be demonstrated. The first half of the second day will entail break-out sessions of various TPWD disciplines to explore potential applications of the UAV architecture in light of existing or proposed programs. The second half of the day will be devoted to prioritization of UAV application across TPWD programs. The primary outcome of the workshop will be for TxState to prepare a detailed concept paper and statement of work that addresses the priority research for the application and testing of the UAV system identified as an outcome of the workshop. This concept document and statement of work will be provided to the TPWD for review and comment and finalized by early June, 2011.

Attachment B

Sample Invoice with Match (on vendor letterhead)

ADDRESS:
Send to the address of the contact
Invoice Date:
MM/DD/YY
person on the contract.
Invoice #:
####
Payment amount for Performance Period:
\$5,865.00

(Total Costs in Column B, Expenditure Categories)

RE: Contract # _____

Performance Period:
MM/DD/YY through MM/DD/YY

(same as Performance Period in Column B)

	(A)	(B)	(C)	(D)
		Performance Period for MM/DD/YY through MM/DD/YY		
Expenditure Categories	Contract Budget		Cumulative Expenses	Balance of Budget as of MM/DD/YY
Salaries	\$10,000.00	\$2,000.00	\$2,000.00	\$8,000.00
Fringe Benefits (25%) *	\$2,500.00	\$500.00	\$500.00	\$2,000.00
Professional and Contracted Services	\$5,000.00	\$2,000.00	\$2,000.00	\$3,000.00
Travel	\$1,000.00	\$200.00	\$200.00	\$800.00
Supplies	\$2,500.00	\$400.00	\$400.00	\$2,100.00
Equipment	\$5,000.00	\$0.00	\$0.00	\$5,000.00
Total Direct Costs	\$26,000.00	\$5,100.00	\$5,100.00	\$20,900.00
Indirect (if allowable) 15% *	\$3,900.00	\$765.00	\$765.00	\$3,135.00
Total Costs	\$29,900.00	<u>\$5,865.00</u>	\$5,865.00	\$24,035.00
Match Expenditures				
Salaries	\$10,000.00	\$2,000.00	\$2,000.00	\$8,000.00
Fringe Benefits	\$2,500.00	\$500.00	\$500.00	\$2,000.00
Professional and Contracted Services	\$5,000.00	\$2,000.00	\$2,000.00	\$3,000.00
Travel	\$1,000.00	\$200.00	\$200.00	\$800.00
Supplies	\$2,500.00	\$400.00	\$400.00	\$2,100.00
Equipment	\$5,000.00	\$0.00	\$0.00	\$5,000.00
Total Direct Costs	\$26,000.00	\$5,100.00	\$5,100.00	\$20,900.00
Indirect (if allowable)	\$3,900.00	\$765.00	\$765.00	\$3,135.00
Total Costs	\$29,900.00	\$5,865.00	\$5,865.00	\$24,035.00

* Fringe Rates & Indirect Rates must be approved in the grant application process with TPWD.

I, subrecipient/vendor, certify that this invoice is correct and that matching funds (if required in the contract) have been provided and will be subject to audit under OMB Circular A-133. I further certify that this invoice has not been previously paid.